

## CLAIMS

What is claimed:

1. A method for routing messages over a computer network comprising a plurality of DBMS systems, said method comprising the steps of:

5       receiving a message in a first form for communicating with a first DBMS wherein said first form comprises an internet message prefix and a data portion, and wherein said internet message prefix comprises routing information for a client;

      modifying said message into a second form wherein said routing information is integrated into said data portion of said message and wherein said second form of said message is utilized to communicate with a second DBMS;

10       receiving a result message generated by said second DBMS wherein said result message comprises a result data portion and wherein said result data portion includes said routing information; and

      modifying said result message to said first form wherein said result message comprises said internet message prefix and wherein said internet message prefix comprises said routing information obtained from said result data portion, whereby said result message may be routed to said client.

2. The method of claim 1 wherein said first DBMS and said second DBMS are heterogeneous.

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3. The method of claim 2 wherein said first DBMS is IMS and said second DBMS is non-IMS.
4. The method of claim 1 wherein said communications to said first DBMS and said second  
5 DBMS utilize a TCP/IP protocol.
5. The method of claim 1 wherein said communications to said second DBMS utilize a SNA  
based protocol.
- 10 6. The method of claim 1 wherein said modifying of said result message includes removing  
said routing information from said result data portion.
7. The method of claim 1 wherein said modifying of said message is performed by an exit  
routine invoked by said first DBMS.
- 15 8. The method of claim 1 wherein said modifying of said message is performed by a  
middleware component.
9. The method of claim 6 wherein said modifying of said result message is performed by one  
20 or more exit routines invoked by said first DBMS.

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10. The method of claim 1 wherein said data portion of said second form of said message includes a Z2 indicia signifying that said data portion of said second form of said message contains said routing information.

- 5 11. A system for routing messages over a computer network comprising a plurality of DBMS systems, said system comprising:
- a computer;
  - means for receiving a message in a first form for communicating with a first DBMS wherein said first form comprises an internet message prefix and a data portion, and
  - 10 wherein said internet message prefix comprises routing information for a client;
  - means for modifying said message into a second form wherein said routing information is integrated into said data portion of said message and wherein said second form of said message is utilized to communicate with a second DBMS;
  - means for receiving a result message generated by said second DBMS wherein said
  - 15 result message comprises a result data portion and wherein said result data portion includes said routing information; and
  - means for modifying said result message to said first form wherein said result message comprises said internet message prefix and wherein said internet message prefix comprises said routing information obtained from said result data portion, whereby said result message
  - 20 may be routed to said client.

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12. The system of claim 11 wherein said first DBMS and said second DBMS are heterogeneous.

13. The system of claim 12 wherein said first DBMS is IMS and said second DBMS is non-IMS.

14. The system of claim 11 wherein said communications to said first DBMS and said second DBMS utilize a TCP/IP protocol.

15. The system of claim 11 wherein said communications to said second DBMS utilize a SNA based protocol.

16. The system of claim 11 wherein said modifying of said result message includes removing said routing information from said result data portion.

17. The system of claim 11 wherein said modifying of said message is performed by an exit routine invoked by said first DBMS.

18. The system of claim 11 wherein said modifying of said message is performed by a middleware component.

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19. The system of claim 16 wherein said modifying of said result message is performed by one or more exit routines invoked by said first DBMS.
20. The system of claim 11 wherein said data portion of said second form of said message  
5 includes a Z2 indicia signifying that said data portion of said second form of said message contains said routing information.

21. An article of manufacture for use in a computer system tangibly embodying computer instructions executable by said computer system to perform process steps for routing messages over a computer network comprising a plurality of DBMS systems, said process steps comprising:

5       receiving a message in a first form for communicating with a first DBMS wherein said first form comprises an internet message prefix and a data portion, and wherein said internet message prefix comprises routing information for a client;

      modifying said message into a second form wherein said routing information is integrated into said data portion of said message and wherein said second form of said message is utilized to communicate with a second DBMS;

10       receiving a result message generated by said second DBMS wherein said result message comprises a result data portion and wherein said result data portion includes said routing information; and

      modifying said result message to said first form wherein said result message comprises 15 said internet message prefix and wherein said internet message prefix comprises said routing information obtained from said result data portion, whereby said result message may be routed to said client.

22. The article of manufacture of claim 21 wherein said first DBMS and said second DBMS are 20 heterogeneous.

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23. The article of manufacture of claim 22 wherein said first DBMS is IMS and said second DBMS is non-IMS.

24. The article of manufacture method of claim 21 wherein said communications to said first  
5 DBMS and said second DBMS utilize a TCP/IP protocol.

25. The article of manufacture of claim 21 wherein said communications to said second DBMS utilize a SNA based protocol.

10 26. The article of manufacture of claim 21 wherein said modifying of said result message includes removing said routing information from said result data portion.

27. The article of manufacture of claim 21 wherein said modifying of said message is performed by an exit routine invoked by said first DBMS.

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28. The article of manufacture of claim 21 wherein said modifying of said message is performed by a middleware component.

29. The article of manufacture of claim 26 wherein said modifying of said result message is  
20 performed by one or more exit routines invoked by said first DBMS.

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30. The article of manufacture of claim 21 wherein said data portion of said second form of said message includes a Z2 indicia signifying that said data portion of said second form of said message contains said routing information.